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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,520	08/25/2003	Michael Choi	81090077	2279

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ALLEMAN HALL MCCOY RUSSELL & TUTTLE, LLP
806 S.W. BROADWAY, SUITE 600
PORTLAND, OR 97205

EXAMINER	
SAN MARTIN, EDGARDO	

ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,520	CHOI ET AL.	
	Examiner	Art Unit	
	Edgardo San Martin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 6, 7, 9 – 13, 15, 17, 18, 20 and 21 - 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakase et al. (US 5,970,963).

With respect to claims 1, 12, 13 and 21 - 24, Nakase et al. teach a method and noise attenuation device for a vehicle exhaust system, comprising an exhaust pipe having a passageway for receiving exhaust gas pulses from an engine; and a plurality of vanes (Fig.11, Items 11 and 12) extending from an inner surface of the exhaust pipe and spaced apart from one another and disposed upstream of the exhaust pipe, the vanes configured to reduce turbulence in the exhaust gas pulses passing through the exhaust pipe outlet to reduce noise generated at the exhaust pipe (Col.2, Lines 14 – 59 and Col.4, Lines 52 – 62).

The Examiner considers the recitation establishing the positioning of the noise attenuation device to be intended use, and it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

With respect to claims 6 and 17, Nakase et al. teach wherein the plurality of vanes form a honeycomb-shaped vane structure in the passageway (Fig.20).

With respect to claims 7, 10, 11, 18 and 20, Nakase et al. teach the limitations described in the claims (Fig.11; Col.2, Lines 14 – 59).

With respect to claims 9 and 15, Nakase et al. teach wherein the plurality of vanes comprise a wire mesh (Figs.25 and 26, Item 21) in the passageway.

2. Claims 1, 3, 5, 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US 5,113,838).

With respect to claim 1 and 13, Kim teaches a method and noise attenuation device for a vehicle exhaust system, comprising an exhaust pipe having a passageway for receiving exhaust gas pulses from an engine; and a plurality of vanes (Figs.2A and 2B, Item 3') extending from an inner surface of the exhaust pipe and spaced apart from one another and disposed upstream of the exhaust pipe, the vanes configured to reduce turbulence in the exhaust gas pulses passing through the exhaust pipe outlet to reduce noise generated at the exhaust pipe (Fig.1; Col.1, Line 58 – Col.2, Line 56 and Col.3, Line 17 – Col.4, Line 3).

The Examiner considers the recitation establishing the positioning of the noise attenuation device to be intended use, and it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

With respect to claim 3, Kim teaches wherein the vanes comprise metal vanes provided by stamped out tabs of the exhaust pipe and wherein a collar (Fig.2B, Item 3) surrounds the exhaust pipe adjacent the vanes.

With respect to claim 5 and 16, Kim teaches further comprising an inner ring disposed in the passageway, the plurality of vanes extending from an inner surface of the exhaust pipe to the inner ring (Fig.2A).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2, 4, 8, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakase et al. (US 5,970,963) or Kim (US 5,113,838).

Nakase et al. and Kim teach the limitations discussed in the previous rejection, but fail to disclose the limitations described in claims 2, 4, 8, 19 and 24.

Regarding claim 2, the Examiner considers that it would have been an obvious matter of design choice to form the vanes by punching out tabs in a ring of metal. The Examiner considers that the manner in which the vanes are provided would not affect the performance of the Kim attenuator.

Regarding claims 4 and 14, the Examiner considers that it would have been an obvious matter of design choice to provide vanes of a specific material, since it has

been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claims 8 and 19, the Examiner considers that it would have been an obvious matter of design choice to provide the vanes with any shape or configuration because the applicant does not provide any reason for function criticality of the shape of configuration of the vanes. Actually, the applicant established throughout the disclosure that "the number, shape, axial length, inwardly extending distance, thickness, and orientation of the vanes of each embodiment **may be varied** based on desired flow characteristics and noise damping characteristics the devices".

Response to Arguments

4. Applicant's arguments filed on November 14, 2005 have been fully considered but they are not persuasive. The Examiner considers that the patents to Nakase et al. and Kim teach the limitations described in the claims as discussed above. Furthermore, as established above, the Examiner considers the recitation establishing the positioning of the noise attenuation device to be intended use, and it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edgardo San Martin
Primary Examiner
Art Unit 2837
Class 181
January 12, 2006